REVIEWS

PRACTICAL CHEMISTRY FOR MEDICAL STUDENTS. By William Klyne. Pp. 460. 1946. Edinburgh: E. & S. Livingstone Ltd. 20s.

THIS book covers the pre-registration and first-year medical courses in chemistry, and is based on the present medical curriculum in the University of Edinburgh. Though the book is not intended to cover bio-chemistry, the author is university lecturer in bio-chemistry, and is therefore in a good position to judge which parts of the chemistry course should be stressed as being specially important for the medical curriculum. He has been careful to keep the balance between the study of chemistry as a science and a training in deduction and logical thinking on the one hand, and the application of chemistry to practical medicine on the other. The title of the book does not do justice to the large amount of theoretical explanatory matter which precedes the various experiments and prevents the practical work from being mere "cookery."

The practical instructions for the individual tests are given concisely and clearly with due regard to safety precautions, economy of material, and the limitations imposed by large classes. Special stress is laid on the importance of control tests. The book starts with a valuable chapter on scientific method, and goes on to deal very briefly with fundamental points such as experimental error, accuracy of results, and statistical method. This is followed by a section on general rules for laboratory work, including safety precautions and methods of cleaning and calibrating apparatus. In connection with the last point, it is stated that Ostwald pipettes, calibrated for delivery, are used like ordinary type pipettes. The author has not made it clear that most Ostwald delivery pipettes are calibrated to be used by blowing out the last drop and not, as with ordinary pipettes, by merely draining. Neglect of this point could lead to quite a substantial error with a small pipette.

A possible criticism of this book is that it contains far more experiments than can be done in the time available for chemistry in the medical curriculum, and while the author may feel that the ideal curriculum should make room for the whole of the work described, it seems unlikely that the time devoted to chemistry can be increased, especially as new subjects, such as normal psychology, are creeping into the pre-clinical period. The author admits that, at present, a selection must be made from the experiments described, but one feels that a more balanced course might result if the author himself made this selection in writing his book. Moreover, the unfortunate medical students would not then be faced with still another textbook containing far more than they are expected to know or even to read. Students often complain of this, and have even been known to cut out the "important" parts of their larger textbooks in order to make a scrapbook of more reasonable size for revision. The purely chemical part might be somewhat shortened, and the sections dealing with topics such as the reactions of proteins and the spectroscopy of blood pigments might be drastically curtailed, since they are dealt with later in the bio-chemistry classes. Apart from this criticism of length, the book is excellent. It is well arranged, with a good index and numerous cross references, and, for a first edition, miraculously free from misprints. All teachers of elementary chemistry would find it well worth while to read this book, and medical graduates wishing to refresh their knowledge of the fundamentals of modern chemistry and the scientific basis of some of the tests they use, would do well to read through many of the chapters.

D. C. H.

THE RESULTS OF RADIUM AND X-RAY THERAPY IN MALIGNANT DISEASE. Second Statistical Report from The Holt Radium Institute, Manchester, 1934-38. Compiled 1945. Edinburgh: E. & S. Livingstone Ltd., Teviot Place. 7s. 6d.

THIS second report from the Holt Radium Institute, Manchester, giving a full statistical report of their cases treated by radium, X-rays, and a combination of both methods during the years 1934-38, is a fuller and more comprehensive report than the original one.

The report is eminently suitable for any practitioner who is interested in statistical records of radiation therapy of any kind of cancer amenable to this treatment.